



68/1626

Patent
Attorney's Docket No. 032740-005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
Dinesh V. Patel, et al.)
Application No.: 09/738,859) Group Art Unit: 1626
Filed: December 13, 2000) Examiner: Taofiq A. Soloda
For: Novel Succinate Compounds, Compositions) Confirmation No.: 9769
and Methods of Use and Preparation)

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AMENDMENT/REPLY TRANSMITTAL LETTER

Assistant Commissioner for Patents
Washington, D.C. 20231

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Sir:

Enclosed is a reply for the above-identified patent application.

☒ A Petition for Extension of Time is also enclosed.

☐ Also enclosed is ____.

☒ No additional claim fee is required.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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Date: June 10, 2002

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RESPONSE TO RESTRICTION REQUIREMENT

37/12/1000

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Sir:

In complete response to the Office Action of April 8, 2002, a Petition Under 37 C.F.R. § 1.136 (a) for one month being filed herewith extending the period for response from May 8, 2002 to Monday, June 10, 2002, Applicants submit the following response.

In the Office Action, the Examiner sets forth a restriction requirement among seven groups of the claims:

- I. Compounds of formula I, claims 1- 48, wherein Y is C or N, n is 2 or 3, and containing pyrazine, piperazine or benzodioxane as the only heterocyclic substituent, classified in class 544, subclasses 336+, 358+.
- II Compounds of formula I, claims 1 - 48, wherein Y is C, n is 2 or 3, and containing prymidine or benzodioxane as the only heterocyclic substituent, classified in class 544, subclass 242+.
- III. Compounds of formula I, claims 1 - 48, wherein Y is O, n is 3, and containing morpholine or benzodioxane as the only heterocyclic substituent, classified in class 544, subclasses 106+.
- IV Compounds of formula I, claims 1 - 48, wherein Y is O or S, n is 2, and containing isoxale, thiazo or benzodioxane as the only heterocyclic substituent, classified in class 548, subclasses 146+, 215+.

- V. Compounds of formula I, claims 1 - 48, wherein Y is C, n is 2 or 3, and containing piperidine or benzodioxane as the only heterocyclic substituent, classified in class 546, subclasses 184+.
- VI. Compounds of formula I, claims 1 - 48, wherein Y is C, n is 1 or 2, and containing pyrrole or benzodioxane as the only heterocyclic substituent, classified in class 548, subclasses 400+, 950+.
- VII. Compounds of formula I, claims 1 - 48, wherein Y is N, n is 2, and containing imidazole or benzodioxane as the only heterocyclic substituent, classified in 548, subclasses 300.1+.

Applicants respectfully traverse the restriction requirement as set forth in the Office Action. Under the statute, if two or more independent and distinct inventions are claimed in one application, the application may be restricted to one of the inventions. 35 U.S.C. § 121, MPEP 802 and 803. In the above Restriction Requirement the Examiner asserts that the inventions of Groups I - VII are independent and distinct, each from the other because there is no patentable co-action among the various groups.

Applicants respectfully submit that there appears to be overlap among the compounds of Groups I - VII. For example, Groups I, II, V, and VI appear to overlap as follows:

Group I includes compounds of formula I, wherein **Y can be C, n is 2 or 3** and containing **benzodioxane** as a heterocyclic substituent;

Group II includes compounds of formula I wherein **Y is C, n is 2 or 3**, and containing **benzodioxane** as a heterocyclic substituent;

Group V includes compounds of formula I wherein **Y is C, n is 2 or 3**, and containing **benzodioxane** as a heterocyclic substituent; and

Group VI includes compounds of formula I wherein **Y is C, n can be 2**, and containing **benzodioxane** as a heterocyclic substituent.

As a further example, Groups I and VII appear to overlap as follows:

Group I includes compounds of formula I, wherein **Y can be N, n can be 2** and containing **benzodioxane** as a heterocyclic substituent and

Group VII includes compounds of formula I wherein **Y is N, n is 2** and containing

benzodioxane as a heterocyclic substituent.

Accordingly, there appears to be direct overlap among the compounds of Groups I - VII. Since there is direct overlap among the compounds of the different Groups that the examiner has set forth, Applicants submit that it is an improper restriction requirement.

Moreover, Applicants submit that it is improper for the Office to refuse to examine that which Applicants regard as their invention unless the subject matter of the claims lacks unity of invention. *In re Harnish*, 631 F.2d 716, 206 U.S.P.Q. 300 (CCPA 1980); and *Ex parte Hazumi*, 3 U.S.P.Q.2d 1059 (Bd. Pat. App. & Int. 1984). Unity of invention exists where compounds included within a Markush group (1) share a common utility and (2) share a substantial structural feature. With regard to a common utility, the compounds of the present invention are used for the treatment of a disease treatable by administration of a peptidyl deformylase inhibitor, in particular bacterial diseases. (Specification, page 6, lines 12-28; claims 47 and 48). With regard to a substantial structural feature, the compounds of the present invention all share a common backbone as defined by Formula (I), which includes a hydroxamic acid functionality at one terminus of the backbone linked by succinate functionality to a heterocyclic ring containing a N at the other terminus of the common backbone. Accordingly, Applicants respectfully submit that unity of invention exists in the present application and it is improper for the Office to refuse to examine the invention as claimed.

Applicants further respectfully submit the compounds of the Markush group are so closely related, as provided above, that a search and examination of the entire claim can be made without serious burden. Applicants note that a proper search of the common backbone would, by necessity, require a proper search of the entire Markush group as presently defined. Thus, Applicants submit that the entire Markush group as presently claimed can be searched simultaneously, and that a duplicative search, with possibly inconsistent results, may occur if the restriction requirement is maintained.

Applicants submit that any nominal burden placed upon the Examiner to search accordingly to determine the art relevant to Applicants' overall invention is significantly outweighed by the public's interest in not having to obtain and study many separate patents in

order to have available all of the issued patent claims covering Applicants' invention. The alternative is to proceed with the filing of multiple applications, each consisting of generally the same disclosure, and each being subjected to essentially the same search, perhaps by different Examiners on different occasions. This process would place an unnecessary burden on both the Patent and Trademark Office and on the Applicants.

As there appears to be overlap among the compounds of the Groups as set forth by the Examiner, Applicants submit that the restriction requirement is improper. In addition, it is improper for the Office to refuse to examine that which Applicants regard as their invention when unity of invention exists. Accordingly, Applicants request reconsideration and withdrawal of restriction.

Nevertheless, in order to comply with the requirements of 37 C.F.R. § 1.143, Applicants must indicate a provisional election of one invention for prosecution. As such, Applicants desire to have the compound of example 140 elected. Accordingly, Applicants elect, with traverse, whatever group that includes the compound of example 140 and thus will allow it to be examined. It is believed that Group I, namely compounds of formula I wherein Y is C or N, n is 2 or 3, and containing pyrazine, piperazine or benzodioxane as the only heterocyclic substituent, includes the compound of example 140 and thus Group I is elected with traverse. However, if it is determined that Group I does not include the compound of example 140, Applicants request the examiner to provide a detailed explain at to which group includes this compound, and Applicants elect that group with traverse.

Applicants reserve the right to file a divisional application covering the subject matter of the non-elected claims.

Unity of invention

Contains: pyridine, pyrrolidine

The Examiner is invited to contact the undersigned at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

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Dated: June 10, 2002

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